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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,782	06/30/2003	Jeffrey L. Wise	IS01307MCG	1894
23330	7590	07/16/2007	EXAMINER	
MOTOROLA, INC.			LEVITAN, DMITRY	
LAW DEPARTMENT				
1303 E. ALGONQUIN ROAD			ART UNIT	
SCHAUMBURG, IL 60196			PAPER NUMBER	
			2616	
			MAIL DATE	
			DELIVERY MODE	
			07/16/2007	
			PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/611,782

Applicant(s)

WISE ET AL.

Examiner

Dmitry Levitan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,6,8,10-14 and 16-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,8,10-14 and 16-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Amendment, filed 7/12/07, has been entered. Claims 1, 2, 5, 6,8, 10-14 and 16-51 remain pending.

Specification

1. The disclosure is objected to, because abbreviations or acronyms, Infiniband and RapidIO are cited throughout the specification without explanation. Applicant should provide a full explanation for the acronyms at least at their first occurrence in the specification.
2. The disclosure is objected to, because text on page 6 and corresponding Figure 2, directed to Clos network, as two groups of switches interconnected, as two stage/tier network, contradicts the traditional concept of Clos networks, which comprises at least three stage/tier network: ingress stage, middle stage and the egress stage, as shown in the following references:
 - a. Zola, US 4,400,627, Summary and Fig.2-7;
 - b. Grinsec, Electronic switching, Elsevier Science, 1983, pages 99-100 and Fig. 5;
 - c. Charles Clos, A study of non-blocking switching network, Bell System Technical Journal, March 1953, 32 (5), pages 406-424
 - d. Clos network, Wikipedia, pages 1-5, 2007.

Examiner requests Applicant to provide evidence in support of network 222 on Fig. 2, which connects first tier of switches 202 with second tier of switches 204, being a Clos network.

Claim Rejections - 35 USC § 112

3. Claims 1, 2, 5, 6,8, 10-14 and 16-51 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which

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was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not provide sufficient details to enable a skilled in the art to make and use the invention because it does not adequately describe the following:

Regarding claim 1, how the plurality of left end-node devices communicate with each other across a Clos network.

Regarding claims 16, 30 and 43, how to couple Clos network, bi-delta and mesh networks between left side switches and right side switches.

The specification does not provide enough details about the structure and operation of the elements associated with the above identified claimed features to enable one skilled in the art to make and use the invention without undue experimentation.

4. Claims 1, 2, 5, 6,8, 10-14 and 16-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 15, 16, 30 and 43 limitations directed to “Clos network” are unclear, because it is not understood what is Clos network in the light of the disclosure.

Claim 10 limitations, directed to “a constant bandwidth mesh network” is unclear, because it is not understood what is constant bandwidth mesh network, as disclosure does not provide information on which mesh networks are considered constant bandwidth and which are not.

Claims 5 and 11 limitations, directed to “rearrangeably non-blocking network” are unclear, because of multiple references to rearrangeably non-blocking network in the disclosure

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with different limitations [0039], [0055]-[0056], therefore it is not understood which networks belong to rearrangeably non-blocking network and which are not.

Claims 6 limitations, directed to “a strictly non-blocking network” are unclear, because it is not understood which networks are considered strictly non-blocking and which are not.

Claim 13 limitations, directed to “fully non-blocking mesh network” are unclear, because of multiple references to fully non-blocking mesh network in the disclosure with different limitations [0041]-[0044], therefore it is not understood which networks belong to fully non-blocking mesh network and which are not.

Claims 1, 16, 30 and 43 limitations, directed to Clos network and bi-delta network and the mesh networks coupled to operate among a plurality of left side switches and a plurality of right side switches, are unclear, because it is not understood how the mentioned three networks are connected.

Claim Rejections - 35 USC § 101

In light of Applicant's Amendment, the rejection of claims 30-42, under 35 U.S.C. 101, has been withdrawn.

Response to Arguments

5. Applicant's arguments filed 7/12/07 have been fully considered but they are not persuasive.

On page 9 of the Response, Applicant argues that terms Infiniband and RapidIO are explained in the corresponding web sites and well known in the art.

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Examiner respectfully disagrees.

Reference to the web sites are not appropriate to provide explanations for the terms of the application, as web sites are subject to constant changes and comprise information dated later the filing date of the current application.

In addition, Applicant explained much more popular terms like IP, ATM and SONET in the specification [0023], therefore explanation of RapidIO and Infiniband in the specification is appropriate.

On pages 9 and 10 of the Response, Applicant argues that Clos network can be understood as a two-tier network.

Examiner respectfully disagrees.

Clos network, as known in the art, is a three-tier network (see the references provided above).

Applicant's arguments, introducing Clos network as two stage/tier network "when the output side of a three stage/tier network is folded over into the input side of network" are not supported by the disclosure as filed, and contradict the references, provided above, regarding Clos network.

Applicant's arguments regarding Zola (US 4,400,627) reference in support of the two-tier interpretation of Clos network are not convincing, because all Fig. 1-7 of the reference show Clos network comprising three tiers/stages: input, center and output.

Applicant is required to provide evidence to support his arguments directed to Clos network as two-stage/tier network.

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On pages 9 and 10 of the Response, Applicant argues that the structure, comprising three networks: Clos network, Bi-delta network and mesh network, is supported by Fig. 1-6 and the disclosure.

Examiner respectfully disagrees.

Application, as filed does not properly disclose the three networks connection, as none of the Fig. 1-6 show all three networks. In addition, the end-node ports are shown on Fig. 1 as connected to left side switches, however, the disclosure provide no information how connect them to each other across Clos network, according to the limitations of claim 1.

On page 11 of the Response, Applicant argues that “a constant bandwidth mesh network”, “rearrangeably non-blocking network” and “strictly non-blocking network” could be understood by one of ordinary skills in the art.

Examiner respectfully disagrees.

Applicant failed to provide any arguments or references to support this statement or explain what is the meaning of these limitations.

Therefore the rejection of claims 5, 6, 10, 11 and 13, under 35 U.S.C. 112, second paragraph, is maintained.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Handwritten signature of Dmitry Levitan, consisting of the letters 'DL' followed by a stylized signature.

Dmitry Levitan
Primary Examiner
Art Unit 2616

**DMITRY LEVITAN
PRIMARY EXAMINER**